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Credit Trends in Subprime Mortgage Lending — Case Review

The liquidity crisis of 1998 reduced the presence of lower-credit borrowers in securitized real estate ABS transactions. Many of the companies that financed loans to such borrowers — for example, UCFC and Conti — exited the business, leaving the issuance and loan origination in the hands of well-capitalized players, whose primary focus was on the upper end of the borrower credit scale.

In 1999 and 2000 some market leaders expanded the lending opportunities for lower-credit borrowers. As business conditions in subprime lending improved in 1999 and 2000, many of the new market leaders felt confident enough to explore opportunities at the lower end of the credit spectrum. Some expanded the underwriting criteria in a limited fashion, in what amounted to little more than a fine-tuning of the business model. Others pursued lower-credit borrowers more aggressively, leading to significantly lower FICO scores on the more recent originations.

Changes in the underwriting standards were taking place while consumer leverage was increasing.

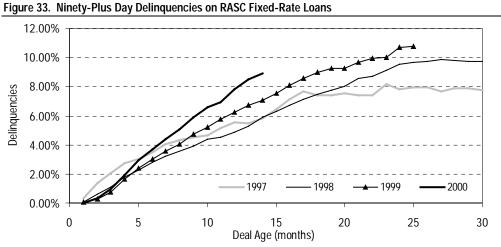
The changes in the underwriting standards were taking place against the backdrop of increasing consumer leverage. Although the strong economy and rising home prices kept this leverage in check through 1999 and 2000, the recent economic slowdown appears to have triggered an increase in the number of delinquencies in the mortgage sector, amplifying the impact of new underwriting standards on credit performance. In this article we review the recent credit performance at two issuers: RFC (the RASC shelf) and Saxon. Both issuers are viewed as top-tier by the ABS market. However, their approaches to the expansion of underwriting criteria were different. At RFC the changes in borrower credit, as reflected in FICO scores, for example, were small. At Saxon the changes were more significant.

Serious delinquencies on 1999 and 2000 originations are higher than on 1997 and 1998

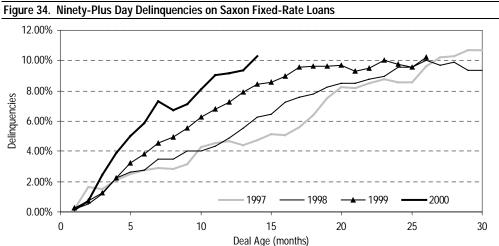
originations.

Credit Performance

When viewed as a function of deal age, serious delinquencies on 1999 and 2000 RFC and Saxon fixed-rate originations are higher than serious delinquencies on 1997 and 1998 originations. In addition to higher levels, the delinquencies on the recent deals increase more steeply from month to month, for almost all deal ages available to date. This pattern of rising delinquencies in shown in Figure 33 for RFC fixed-rate pools and in Figure 34 for Saxon pools. The graphs show 90-plus day delinquencies, which include foreclosures, bankruptcies, and REOs.



Source: Salomon Smith Barney.



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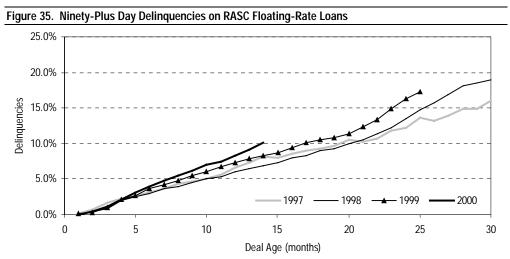
Weakening of credit performance is issuer-specific.

Although serious delinquencies increased for both issuers, the deterioration of credit performance is stronger for Saxon originations. For example, at the deal age of six months, delinquencies on the RFC's 2000 vintage were about the same as on the 1997 vintage, while at the deal age of 12 months they were 2.2% higher.²⁷ For Saxon, by contrast, at the deal age of six months, serious delinquencies on the 2000 vintage were 3.1% higher than on the 1997 vintage, while at 12 months they were 4.4% higher. Most of the differences in trends between the two issuers can be traced to differences in the evolution of the collateral composition, as we will discuss. Other features of the graphs in Figures 33 and 34 — such as the rather sharp decline in delinquencies after seven months for the Saxon 2000 deals — can also be accounted for by changes in the collateral.

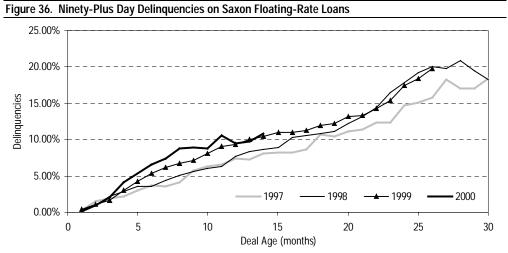
Delinquencies on floating-rate loans exhibit the same trends as delinquencies on fixed-rate loans, although the variation from vintage to vintage is less pronounced.

²⁷ As a percentage of the outstanding balance.

Figures 35 and 36 show the 90-plus day delinquencies on RFC and Saxon floating-rate pools originated since 1997.



Source: Salomon Smith Barney.



Source: Salomon Smith Barney.

Collateral

Several key collateral characteristics for fixed-rate and floating-rate RFC and Saxon deals are displayed in Figures 37 and 38.

Figure 37. Select Collateral Characteristics of RFC and Saxon Fixed-Rate Subprime Deals **Original Currenta** Issue WAC LTV Ral Term Purchase Avg. Bal (\$MM) Deal Date (%) (Months) (% of Deal) (%) (\$000) FIC0 RASC 97.KS1 Mar 97 121.7 11.05 282 28 71 76 NA RASC 97.KS3 74 Aug 97 200.0 10.84 284 35 71 NA 75 RASC 97.KS4 Nov 97 200.1 10.49 296 35 73 623 RASC 98.KS1 Mar 98 380.4 10.11 303 33 73 78 621 RASC 98.KS2 Jun 98 401.8 10.23 278 24 74 72 617 Sep 98 27 277 77 70 RASC 98.KS3 450.1 10.07 617 RASC 98.KS4 Dec 98 350.0 10.12 287 27 77 67 612 Mar 99 **RASC 99.KS1** 650.0 10.06 302 31 77 73 613 RASC 99.KS2 Jun 99 650.0 9.98 300 33 78 78 613 RASC 99.KS3 Sep 99 700.0 10.21 304 36 77 73 607 75 RASC 99.KS4 Nov 99 350.0 10.45 300 38 79 604 302 34 78 73 RASC 00.KS1 Feb 00 650.0 609 10.44 RASC 00.KS2 Mar 00 300.0 10.57 298 26 77 72 601 RASC 00.KS3 Jun 00 500.0 10.82 297 34 77 71 607 37 73 RASC 00.KS4 Sep 00 500.0 11.00 307 76 605 RASC 00.KS5 Dec 00 500.0 306 33 77 73 601 11.07 SAST 97.1 20 106.6 10.10 282 74 83 635 Mar 97 SAST 97.2 Jun 97 119.5 304 25 75 82 630 10.22 **SAST 97.3** Nov 97 234.1 10.09 311 26 75 79 631 SAST 98.1 Feb 98 344.9 10.00 304 24 76 78 617 233.8 285 21 83 SAST 98.2 Jun 98 9.78 76 618 Sep 98 SAST 98.3 259.5 9.59 284 28 76 89 629 SAST 98.4 Nov 98 304.5 9.62 273 28 78 86 620 SAST 99.1 Feb 99 257.8 9.82 266 23 76 84 614 SAST 99.2 May 99 249.0 9.98 253 26 77 84 607 Aug 99 247 28 77 81 SAST 99.3 492.8 10.08 604 Nov 99 323 24 78 76 SAST 99.5 300.0 10.35 601 21 599 SAST 00.1 Feb 00 298.8 10.46 343 76 86 SAST 00.2 Jun 00 490.0 10.65 314 24 76 81 595

340.3

180.0

11.30

11.30

230

228

26

24

75

74

77

78

584

584

Sep 00

Dec 00

Source: Salomon Smith Barney.

SAST 00.3

SAST 00.4

^a Current values refer to the original values of the variables for the loans currently in the pool.

| Figure 38. Select Collateral Characteristics of RFC and Saxon Floating-Rate Subprime Deals | | | | | | | | | |
|--|----------|--------|----------|----------|-------------|----------------------|----------|------|--|
| | | | Original | | | Current ^a | | | |
| | Issue | Bal | WAC | Term | Purchase | LTV | Avg. Bal | | |
| Deal | Date | (\$MM) | (%) | (Months) | (% of Deal) | (%) | (\$000) | FICO | |
| RASC 97.KS1 | I Mar 97 | 151.9 | 9.57 | 360 | 46 | 76 | 106 | NA | |
| RASC 97.KS2 | 2 Jun 97 | 365.3 | 9.79 | 360 | 41 | 77 | 100 | NA | |
| RASC 97.KS3 | 3 Aug 97 | 250.0 | 9.79 | 360 | 49 | 78 | 93 | NA | |
| RASC 97.KS4 | 1 Nov 97 | 200.1 | 9.97 | 360 | 46 | 76 | 78 | 604 | |
| RASC 97.KS4 | 1 Nov 97 | 200.0 | 9.88 | 360 | 49 | 77 | 98 | 599 | |
| RASC 98.KS1 | l Mar 98 | 150.0 | 9.77 | 360 | 41 | 76 | 70 | 598 | |
| RASC 98.KS1 | l Mar 98 | 325.0 | 9.90 | 360 | 54 | 80 | 99 | 605 | |
| RASC 98.KS2 | 2 Jun 98 | 370.0 | 9.81 | 360 | 49 | 79 | 95 | 596 | |
| RASC 98.KS2 | | 75.0 | 9.84 | 360 | 62 | 81 | 96 | 604 | |
| RASC 98.KS3 | Sep 98 | 425.0 | 9.84 | 360 | 56 | 82 | 99 | 598 | |
| RASC 98.KS4 | 1 Dec 98 | 475.0 | 9.78 | 355 | 54 | 81 | 104 | 601 | |
| RASC 99.KS1 | Mar 99 | 650.0 | 10.02 | 360 | 51 | 80 | 89 | 592 | |
| RASC 99.KS2 | 2 Jun 99 | 575.0 | 10.02 | 360 | 49 | 81 | 97 | 591 | |
| RASC 99.KS3 | Sep 99 | 750.0 | 10.08 | 360 | 53 | 81 | 99 | 591 | |
| RASC 99.KS4 | 1 Nov 99 | 500.0 | 10.24 | 360 | 51 | 81 | 88 | 589 | |
| RASC 00.KS1 | Feb 00 | 750.0 | 10.33 | 360 | 47 | 82 | 97 | 587 | |
| RASC 00.KS2 | 2 Mar 00 | 575.0 | 10.30 | 360 | 43 | 81 | 102 | 589 | |
| RASC 00.KS3 | 3 Jun 00 | 750.0 | 10.63 | 360 | 48 | 81 | 98 | 587 | |
| RASC 00.KS4 | 1 Sep 00 | 925.0 | 10.82 | 360 | 55 | 81 | 105 | 591 | |
| RASC 00.KS5 | Dec 00 | 850.0 | 10.92 | 360 | 51 | 81 | 105 | 591 | |
| SAST 97.1 | Mar 97 | 357.5 | 9.70 | 360 | 20 | 74 | 81 | 588 | |
| SAST 97.2 | Jun 97 | 347.4 | 9.68 | 360 | 20 | 75 | 81 | 589 | |
| SAST 97.3 | Nov 97 | 366.2 | 9.51 | 360 | 35 | 78 | 117 | 603 | |
| SAST 98.1 | Feb 98 | 140.9 | 9.48 | 360 | 22 | 74 | 105 | 604 | |
| SAST 98.2 | Jun 98 | 224.0 | 9.54 | 360 | 28 | 76 | 91 | 594 | |
| SAST 98.3 | Sep 98 | 235.7 | 9.38 | 360 | 30 | 78 | 119 | 591 | |
| SAST 98.4 | Nov 98 | 220.3 | 9.72 | 360 | 36 | 78 | 107 | 581 | |
| SAST 99.1 | Feb 99 | 251.2 | 9.74 | 360 | 33 | 79 | 97 | 581 | |
| SAST 99.2 | May 99 | 225.1 | 9.90 | 360 | 29 | 78 | 106 | 577 | |
| SAST 99.3 | Aug 99 | 357.2 | 9.96 | 357 | 40 | 79 | 110 | 577 | |
| SAST 99.4 | Novv99 | 370.0 | 10.03 | 360 | 40 | 80 | 112 | 586 | |
| SAST 00.1 | Feb 00 | 160.0 | 10.21 | 360 | 39 | 79 | 111 | 582 | |
| SAST 00.2 | Jun 00 | 250.0 | 10.52 | 360 | 38 | 78 | 111 | 578 | |
| SAST 00.3 | Sep 00 | 334.7 | 10.79 | 360 | 40 | 78 | 119 | 580 | |
| SAST 00.4 | Dec 00 | 280.0 | 10.77 | 360 | 37 | 78 | 120 | 578 | |

^a Current values refer to the original values of the variables for the loans currently in the pool.

Source: Salomon Smith Barney.

Some of the loan features shown in the tables are effective determinants of delinquency and default behavior. We review them in detail.

Variation of loan terms from deal to deal is higher than the trend . . . **Loan Term.** Longer-term loans become delinquent at higher rates than shorter-term loans, all other variables being equal. On the fixed-rate side, RFC's average loan terms have extended slightly since 1997, although the variation from deal to deal is higher than the average extension from 1998 to 2000. Saxon's average loan terms also vary significantly from deal to deal, with the overall trend toward shortening.

... except for the last two Saxon deals.

The last two Saxon deals in 2000 stand apart from the other deals. Average loan terms are more than 80 months shorter compared to the preceding deals, the WACs are sharply higher (even though the conforming rates declined by more than 100bp during the second half of 2000), and FICO scores are lower by 15 points. These features point to a significant and abrupt change in the underwriting standards.

On the floating-rate side, virtually all collateral has been originated as 30-year loans over the full period shown.

Purchase Money Loans. Loans taken out for the purchase of a home, rather than to consolidate debt, tend to carry less credit risk. Little trend is evident either in RFC of Saxon fixed-rate originations, except during the refinancing wave of 1998, when the fraction of refinancing loans increased in fixed-rate RFC pools. Apart from the general observation that RFC deals generally have 10%–15% more purchase money loans than Saxon deals, this characteristic of the loans does not account for the observed trend of increasing delinquencies.

Trends in LTV do not explain the observed pattern of delinquencies.

LTV. Original loan-to-value ratio (LTV) is a key loan determinant of credit behavior. The trends in LTV shown in Figures 37 and 38, however, do not explain the observed pattern of delinquencies. LTVs on RFC fixed- and floating-rate deals increased by 4%–6% from 1997 through the second half of 1998, but have remained nearly constant since that time. With the exception of the last two fixed-rate deals, LTVs on Saxon transactions show little directionality from vintage to vintage.

FICO score. Consumer credit is by far the best predictor of credit performance of a loan. Although FICO scores are not necessarily the best measure of consumer credit for mortgage transactions, they provide a simple and unambiguous way of comparing the credit composition of different pools.

A sharp drop in FICO scores for fixed-rate Saxon deals explains the observed performance. A sharp drop in FICO scores for fixed-rate Saxon deals between 1997 and 2000 offers a clear explanation for the observed deterioration of credit performance. The FICO scores declined by more than 45 points between 1997 and the end of 2000, and by 35–40 points between 1998 and 2000. By comparison, between 1998 and 2000 the FICO scores on RASC fixed-rate deals dropped by a far more modest ten–15 points. This difference is consistent with a more dramatic deterioration of credit performance for fixed-rate Saxon deals.

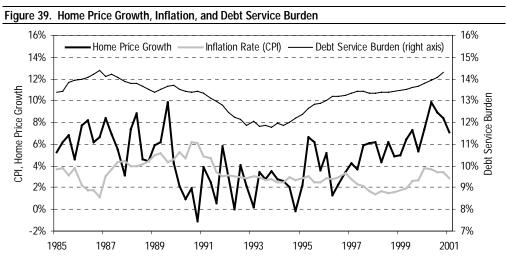
The drop in FICO scores for the last two fixed-rate Saxon deals in 2000 compared to earlier 2000 deals also accounts for the drop in 90-plus day delinquencies that are evident in Figure 34 at seven months. The average FICO score for deals originated in 2000 and aged by more than seven months is 597, compared to 591 for all 2000 deals.

On the floating-rate side, the FICO scores changed by only a few points for RFC deals between 1998 and 2000. For Saxon deals they declined by about ten points over the same period, consistent with a slightly more pronounced deterioration of credit performance for floating-rate Saxon deals.

Economic Environment

Although the downward trend of FICO scores with vintage accounts well for the observed pattern of weakening credit performance, the collateral characteristics alone likely cannot provide a full explanation. For example, delinquencies on floating-rate RASC deals were higher for 1999 and 2000 vintages compared to the earlier ones, even though little trend is evident over that time period in any of the collateral characteristics shown in Figures 37 and 38. Increasing overall consumer leverage most likely played a part.

Increasing consumer leverage likely contributed to rising delinquencies. Consumer leverage can be measured either as a total indebtedness per capita or as a fraction of monthly cashflows that the consumer expands to service his debt. By either measure, consumer leverage has grown steadily during the last decade and is currently at or near an all-time high. Since the consumer debt load is a relevant determinant of credit performance, it may be assumed that the increase in consumer leverage is partly responsible for the increasing trend of delinquencies seen in Figures 33–36. The effect of consumer indebtedness may be expected to become more pronounced going forward, as the weakening economy and a slowdown of home price appreciation begin to strain the consumer's ability to service debt. Figure 39 shows the history of debt service burden, the national average of home price growth (quarterly, annualized), and the CPI index.



Source: Salomon Smith Barney